

**What is claimed is:**

1. A cathode ray tube comprising:  
a panel having an effective screen;  
5 a funnel connected to the panel; and  
an electron gun to generate electron beams; wherein  
said effective screen has a horizontal and vertical ratio of 16:9; and  
said panel satisfies a condition:

$$[(\Delta y/d) \times 100] \leq 5.65$$

10 wherein d is length from a central point G to a diagonal vertex E of  
said effective screen, and  $\Delta y$  is length from a point H to an intersection  
point of the outline of the panel and the shorter axis Y, the point H being  
intersection of shorter axis Y and a longer side of said effective screen.

2. The cathode ray tube of claim 1, wherein  
15 said panel further satisfies a condition:

$$[(\Delta y/Y) \times 100] \leq 11.50$$

wherein Y is length from the central point G of said effective screen to  
the point H.

3. The cathode ray tube of claim 1, wherein  
20 said panel further satisfies a condition:

$$[(\Delta x/d) \times 100] \leq 2.05$$

wherein  $\Delta x$  is length from a point F to an intersection point of the  
outline of the panel and the longer axis X, wherein the point F is intersection  
of longer axis X and a shorter side of said effective screen.

4. The cathode ray tube of claim 3, wherein

said panel further satisfies a condition:

$$[(\Delta x/X) \times 100] \leq 3.5$$

wherein X is length from the central point G of said effective screen

to the point F.

5. The cathode ray tube of claim 4, wherein

said panel further satisfies a condition:

$$[(\Delta y/Y) \times 100] \leq 11.50.$$

6. The cathode ray tube of claim 1, wherein

outer surface of said panel is substantially flat.

7. A cathode ray tube comprising:

a panel having an effective screen;

a funnel connected to the panel; and

an electron gun to generate electron beams; wherein

said effective screen has a horizontal and vertical ratio of of 4:3; and

said panel satisfies a condition:

$$[(\Delta y/d) \times 100] \leq 5.05$$

wherein d is length from a central point G to a diagonal vertex E of

said effective screen, and  $\Delta y$  is length from a point H to an intersection

point of the outline of the panel and the shorter axis Y, the point H being

intersection of shorter axis Y and a longer side of said effective screen.

8. The cathode ray tube of claim 7, wherein

said panel further satisfies a condition:

$$[(\Delta y/Y) \times 100] \leq 9.0$$

wherein Y is length from the central point G of said effective screen to the point H.

9. The cathode ray tube of claim 7, wherein  
said panel further satisfies a condition:

$$[(\Delta x/d) \times 100] \leq 2.95$$

wherein  $\Delta x$  is length from a point F to an intersection point of the outline of the panel and the longer axis X, wherein the point F is intersection of longer axis X and a shorter side of said effective screen.

10. The cathode ray tube of claim 9, wherein  
said panel further satisfies a condition:

$$[(\Delta x/X) \times 100] \leq 3.5$$

wherein X is length from the central point G of said effective screen to the point F.

11. The cathode ray tube of claim 10, wherein  
said panel further satisfies a condition:

$$[(\Delta y/Y) \times 100] \leq 9.0$$

12. The cathode ray tube of claim 7, wherein  
outer surface of said panel is substantially flat.